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APPLICATION NO.	FILING DATE	FIRST NAME OF INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,533	01/23/2002	In Chul Jeong	0465-0838P-5P	5490

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EXAMINER

STINSON, FRANKIE L.

ART UNIT

PAPER NUMBER

1746

DATE MAILED: 06/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.	Applicant(s)
10/052,553	JEONG ET AL.
Examiner	Art Unit
FRANKIE L. STINSON	1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

## A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - IF NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2004.  
 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1, 3, 4 and 8-21 is/are pending in the application.  
 4a) Of the above claim(s) 10-18 is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1, 3, 4, 8, 9 and 19-21 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☐ All b) ☐ Some \* c) ☐ None of:  
 1. ☐ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date 8/30/02 & 1/8/04  
 4) ☐ Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_  
 5) ☐ Notice of Informal Patent Application (PTO-152)  
 6) ☐ Other: \_\_\_\_\_

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1. Claims 10-18 stand withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in papers filed April 8, 2004.

Please note that claim 12 has been grouped with the nonelected claims in that the claim requires "at least one cooling fin disposed on the outer surface of at least one circulation duct", but this feature is shown in the nonelected fig. 4. Therefore, claim 12 has not been treated on the merits.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 3, 4, 8 and 19-21 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by UK 2,215,826, Japan 11-347296, Dottor et al., or Muller.

Re claim 1, note that there is disclosed a washing machine comprising: a first tub (1 in UK'826, 3 in Japan'296; 3 in Dottor; 5; 11 in Muller), a second tub (2 in UK'826; 7 in Japan'296; 5 in Dottor; and 14 in Muller) disposed in the first tub; at least one circulation duct (8 in UK'826; 22 in Japan'296; 20 in Dottor; and 26 in Muller) operatively coupled with the first tub to receive air from the second tub, dehumidify the air and recirculate the dehumidified air back into the second tub to dry laundry in the second tub during a

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drying operation of the washing machine and a water supplying duct (12 in UK'826; 25 in Japan'296; 22 in Dottor; 323 and 23 in Muller) for supplying external water to the at least one circulation duct to further dehumidify the air in the at least one circulation duct wherein the at least one circulation duct has a plurality of grooves (15 in UK'826; 27, 28 in Japan'296; 20 in Dottor; and as at 20 in Muller) provided at inner wall surfaces of the at least one circulation duct. Re claim 3, UK'826, Japan'296, Dottor and Muller disclose the fan and heater. Re claim 4, the fan in UK'826, Japan'296, Dottor and Muller is believed to be a "sirocco type" fan. Re claim 8, Dottor discloses the grooves in a helical configuration. Re claim 19, Japan'296 discloses the pulsator. Re claim 20 Japan'296, Dottor and Muller discloses the drain duct coupled to the first tub. Re claim 21, Dottor discloses the opening for the recirculation and drain duct being spaced as claimed.

4. Claims 1, 3 and 19-21 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Fukumoto et al. (U. S. Pat. No. 6,282,928).

Re claim 1, note that Fukumoto discloses (see fig. 7, 8, or 9) a washing machine comprising: a first tub (14), a second tub (13) disposed in the first tub; at least one circulation duct (42) operatively coupled with the first tub to receive air from the second tub, dehumidify the air and recirculate the dehumidified air back into the second tub to dry laundry in the second tub during a drying operation of the washing machine and a water supplying duct (43) for supplying external water to the at least one circulation duct to further dehumidify the air in the at least one circulation duct wherein the at least one circulation duct has a plurality of grooves (29, 44) provided at inner wall surfaces of the at least one circulation duct. Re claim 3, Fukumoto disclose the fan (26) and heater

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(25). Re claim 4, Fukumoto is believed to have a "sirocco type" fan. Re claim 19, Fukumoto discloses the pulsator (16). Re claim 20, Fukumoto discloses the drain duct (22) coupled to the first tub. Re claim 21, Fukumoto discloses the opening for the recirculation (42) and drain (22) duct being spaced as claimed.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over UK'826, Japan'296, Muller or Fukumoto in view of either Dottor et al. or Japan 2000-282857. Claim 8 defines over the applied prior art only in the recitation of the grooves being in a helical configuration. Dottor and Japan'857 are each cited disclosing in a circulation duct for circulating moisture laden air, where there is provided a groove in a helical configuration. It therefore would have been obvious to one having ordinary skill in the art to modify the grooves of either UK'826, Japan'96, Muller or Fukumoto to have a helical configuration as taught by either Dottor or Japan'857, for the purpose of expediting the removal of condensed liquid from the duct.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over UK826, Japan'296, Dottor et al., Muller or Fukumoto in view of UK 2,075,559. Claim 9 defines over the applied prior art only in the recitation of the external air supply supplied by a fan. UK'559 discloses the external supply as supplied by a fan (10) as claimed. It therefore would have been obvious to one having ordinary skill in the art to

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modify the device of either UK'826, Japan'926, Dottor, Fukumoto or Muller to include an external air supply as taught by UK'559, for the purpose of increasing the efficiency of the condenser.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In WO 93/17169, Japan9-173697 and Pinder note the circulation ducts.


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRANKIE L. STINSON whose telephone number is (571) 272-1308. The examiner can normally be reached M-F from 5:30 a.m. to 2:00 p.m. and some Saturdays from 5:30 a.m. to 11:30 a.m.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application should be directed to TECHNOLOGY CENTER 1700 (571) 272-1700.

Any inquiry for missing parts of this Office Action (copies of references, pages, forms etc.), contact the TEAM LEADER Ms. Nicol Scott (571) 272-1045.

fis

  
FRANKIE L. STINSON  
Primary Examiner  
Art Unit 1746